

Abstract

An object of the present invention is to provide a catalyst for hydrodesulfurization/dewaxing of a hydrocarbon oil, with which sulfur compounds in the hydrocarbon oil can be desulfurized to a high degree and which simultaneously is extremely effective in reducing the wax deposit content; a process for producing the catalyst; and a method of hydrotreatment with the catalyst.

The invention relates to a catalyst for hydrodesulfurization/dewaxing of a hydrocarbon oil, comprising a support comprising an inorganic oxide containing at least one crystalline aluminosilicate having a one- or two-dimensional pore path system and, having provided thereon, 10 to 35% by mass of a metal in Group 6 of the Periodic Table, 1 to 10% by mass of a metal in Group 8 of the Periodic Table, and 1.5 to 6% by mass of phosphorus in terms of oxide amount on the basis of the catalyst and further containing 2 to 14% by mass of carbon derived from an organic acid in terms of element amount on the basis of the catalyst, wherein the content of the crystalline aluminosilicate having a one- or two-dimensional pore path system in the support is 3 to 25% by mass on the basis of the support; a process for

producing the catalyst; and a method of hydrotreatment with the catalyst.